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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES A. HOFF

Appeal 2009-000023
Application 10/602,905
Technology Center 3700

Decided: September 14, 2009

Before LINDA E. HORNER, MICHAEL W. O'NEIL, and STEFAN
STAICOVICI, *Administrative Patent Judges*.

O'NEILL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

James A. Hoff (Appellant) seeks our review under 35 U.S.C. § 134 of the final rejection of claims 1-5, 7-9, 13-17. Claims 6 and 10-12 are canceled. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

The Invention

The claimed invention is to a closing plug of a closure assembly, on a metal container, particularly a large drum or barrel. The closing plug includes a torque-limiting feature that provides visual confirmation to indicate whether the closing plug is properly tightened. The visual confirmation is achieved by the inclusion of axially-protruding portions that abut up against a portion of the drum end of the metal container that overlays the upper surface of a receiving flange. Spec. 1:14-19.

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A closing plug for receipt by a threaded flange that is assembled into a drum end, said closing plug comprising:
 - a threaded body for receipt by said threaded flange;
 - a radial flange arranged adjacent a first end of said threaded body; and
 - a plurality of spaced-apart, axially-protruding projections extending from an outer portion of said radial flange in the direction of said drum end for limiting the threaded advancement of said plug by abutment of one or more of said plurality of axially-protruding projections against a surface of said drum end.

The Prior Art

The Examiner relies upon the following as evidence of unpatentability:

Bradshaw	US 4,105,135	Aug. 8, 1978
Ziegler	US 4,124,140	Nov. 7, 1978
Baughman	US 5,680,953	Oct. 28, 1997
Baughman	US 5,971,189	Oct. 26, 1999

The Rejections

The following Examiner's rejections are before us for review:

Claims 1 and 8-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bradshaw "in reference to Baughman US 5,971,189" (Baughman '189). *See* Ans. 3.¹

Claims 2-5 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bradshaw. *See* Ans. 4.

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Baughman US 5,680,953 (Baughman '953). *See* Ans. 5.

Claims 13-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ziegler in view of Bradshaw. *See* Ans. 5

SUMMARY OF DECISION

We AFFIRM-IN-PART.

OPINION

*Anticipation of claims 1 and 8- 9 with Bradshaw "in reference to"
Baughman '189*

Issue

Has Appellant demonstrated error in the Examiner's prima facie case of anticipation?

Analysis

The Examiner finds that Bradshaw's scallop portions 8 are capable of being used in the manner claimed. The Examiner bases this finding on an assertion that Bradshaw's plug could be applied to another threaded flange

¹ We refer to the Supplemental Answer mailed Mar. 31 2008 that replaces the Supplemental Answer mailed Feb. 14, 2007.

such as that of Baughman '189. Ans. 3. Appellant disagrees and argues that the Examiner is taking Bradshaw's plug and applying it to some handpicked flange. Further, Appellant contends the Examiner is speculating in his approach to reading the prior art onto the claimed invention. App. Br. 10-11.

Our reviewing court has determined three instances where anticipation over multiple references is proper:

(A) To prove the primary reference contains an "enabled disclosure." *See In re Donohue*, 766 F.2d 531 (Fed. Cir. 1985).

(B) To explain the meaning of a term used in the primary reference. *See In re Baxter Travenol Labs*, 952 F.2d 388 (Fed. Cir. 1991).

(C) To show that a characteristic not disclosed in the reference is inherent. *See Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268 ("To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.")

The Examiner has neither used Baughman '189 to prove Bradshaw contains an enabling disclosure, to explain a term of art, or to show that Bradshaw's scallop portions 8 on the closure plug 1 are capable of abutting Bradshaw's raised polygonal recess 17 (the surface of the drum end). Further, it is not clear to us that if Bradshaw's closure plug were applied to the threaded outlet 21 of Baughman '189 that Bradshaw's scallop portions 8 would necessarily abut the surface of the drum end of Baughman '189.

In view of the foregoing, Appellant has demonstrated error in the Examiner's prima facie case of anticipation with Bradshaw and Braughman'189.

Obviousness of claims 2-5 and 7 with Bradshaw

The Examiner has not used Bradshaw in a manner to cure the deficiency shown with respect to the anticipation rejection of claim 1 with Bradshaw. Claims 2-5 and 7 are dependent from claim 1 and, therefore, suffer from the same deficiency as with claim 1. Accordingly, we are constrained not to sustain the Examiner's obviousness rejection of claims 2-5 and 7.

Obviousness of claim 13 with Baughman '953

Issue

Appellant contends that the Examiner erred in rejecting claim 13 as being obvious over Baughman '953 because it lacks having a threaded flange that assembles into the drum end to which the closure plug is received therein. App. Br. 19. Appellant's view is Baughman only teaches a single, unitary, plastic closing plug that threads directly to the outlet of the drum end. *Id.*

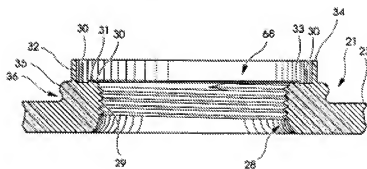
The Examiner posited that whether the threaded flange is a separate component from the drum end (as claimed) or integrally formed with the drum end (as shown in Baughman) the end result is the same, viz. a threaded flange connected to a drum end which the closure plug would thread into. Ans. 11.

In view of Appellant's contention and the Examiner's position, the issue before us is as follows:

Has Appellant shown that the Examiner erred in concluding that the difference in the claimed invention and Baughman, *viz.* the threaded flange being separate from the drum as compared to it being integral with the drum end, does not serve to patentably distinguish the claimed threaded flange from Baughman's threaded flange?

Pertinent Facts

1. An ordinary and customary meaning of "flange" is "a rib or rim for strength, for guiding, or for attachment to another object." *Merriam-Webster's Collegiate Dictionary* (10th ed. 1999).
2. Baughman '953 figure 2 is reproduced below.



Baughman '953 figure 2 depicts a drum end including an internally threaded raised outlet.

3. Baughman '953 describes the construction of the raised outlet 21 as follows:

Outlet 21 includes a generally cylindrical, raised wall portion 28 which is internally threaded with standard two inch NPS threads 29. The threaded portion includes all of wall portion 28 and approximately one-half of the wall thickness of drum lid 23. The upper surface 30 of wall portion 28 is substantially flat and includes a relatively

short raised axial rib 31 and a higher axial wall 32. The cross section of rib 31 is generally rectangular as illustrated in FIG. 2 with a substantially flat top surface 33. The cross section of wall 32 is generally rectangular as illustrated in FIG. 2 with a substantially flat top surface 34. Rib 31 and wall 32 are each generally cylindrical and are each generally concentric to each other and extend upwardly in a direction substantially normal to upper surface 30. Raised wall portion 28 includes an outer, annular radius peripheral edge 35 and an annular recessed area 36 beneath edge 35.

Col. 4, ll. 15-31.

4. As described by Baughman '953, the outlet 21 includes threads and a raised peripheral edge 35 having a recess area beneath the edge. Given the ordinary and customary meaning, *see* Fact 1, this raised edge portion of Baughman '953 in combination with rib 31 and wall 32 form a flange because this portion satisfies two of the three purposes for a flange, i.e., the edge 35 is thicker (for strength) and the rib 31 and wall 32 would guide the closure 20 plug onto the drum end. Further, from threads 29 within in this portion of Baughman '953, a person of ordinary skill in the art would consider this structure to be a threaded flange.
5. Claim 13 recites as part of the drum closure that "a threaded flange [is] constructed and arranged for assembly into said drum end."
6. Figure 2 shows a partial view of the claimed threaded flange and drum end assembled.

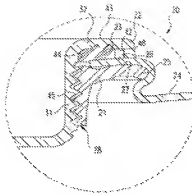


Figure 2 depicts flange 21 and drum end 24 which has portion 26 overlaying flange 21.

7. The difference between the claimed flange and drum end and the Baughman '953 flange and drum end is that Baughman is formed from one piece whereas the claimed flange and drum end is formed from two pieces. Facts 4-6.

Principles of Law

A claim is unpatentable for obviousness under 35 U.S.C. § 103(a) if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007).

Analysis

Appellant’s contentions, (*see* App. Br. 19 and Reply Br. 9), to show error on the part of the Examiner’s rejection, (*see* Ans. 5 and 13), has led to a finding that the difference between the claimed invention and the structure taught in Baughman ‘953 is the attachment of the threaded flange to the drum end. Fact 7. The threaded flange in Baughman ‘953 is molded or

integral with the drum end; and thus, a one-piece assembly. *See* Facts 2-4. The threaded flange of the claimed invention is assembled into the drum end. *See* Fact 5. As such, it is a two-piece assembly. Appellant contends that this difference patentably distinguishes the claimed invention from Baughman '953. *See* App. Br. 19 and Reply Br. 9.

For a claimed invention to be nonobvious over the prior art, the difference therebetween must be such that a person of ordinary skill in the art would find the difference nonobvious. We conclude that the difference between the threaded flange assembly of the claimed invention and Baughman 953's threaded flange assembly is obvious because a person having ordinary skill in the art would have ample reason to make the single-piece threaded flange assembly shown in Baughman '953 into a threaded flange assembled into the drum end. For instance, having a separate threaded flange from the drum end would reduce the cost of repairing a drum because only a small flange assembly would have to be replaced or reconditioned as compared to an entire drum end. As such, a person having ordinary skill in the art would not consider the difference contended by Appellant between the claimed invention and Baughman '953 patentably distinguishable. Accordingly, Appellant has not demonstrated error in the Examiner's conclusion that the difference between the claimed invention and Baughman '953 is not patentably distinguishable.

Obviousness of claims 13-17 with Ziegler and Bradshaw

Appellant contends that the Examiner erred in rejecting claims 13-17 because there is no rational underpinning for the Examiner's reason to combine the scallop portions 8 shown in Bradshaw to the closure plug

shown in Ziegler in order to take a closure plug designed to be closed with a wrench and make it closeable by hand. *See* App. Br. 20-21. We agree with Appellant. To insert the scallop portions of Bradshaw onto the lip 36 of Ziegler would, in effect, make Ziegler's lip 36 inoperable to accommodate a standard wrench. *See* col. 4, ll. 19-20. In other words, the scallop portions 8 of Bradshaw would prohibit a standard wrench from turning the lip 36 of Ziegler, which is the purpose of the lip. Accordingly, this modification proposed by the Examiner would make the lip unsatisfactory for its intended purpose of being tightened by a standard wrench; and thus would not have been obvious. *See Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 1360 (Fed. Cir. 1999) (Where the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, the proposed modification would not have been obvious). Therefore, Appellant has shown that the Examiner's reason to combine Bradshaw's scallop portions 8 with Ziegler's lip 36 has no rational underpinning.

CONCLUSIONS

Appellant has demonstrated error in the Examiner's prima facie case of anticipation.

Appellant has not demonstrated error in the Examiner conclusion that the difference between the claimed invention and Baughman is not patentably distinguishable.

Appellant has demonstrated that the Examiner's reason for combining Ziegler with Bradshaw has no rational underpinning.

DECISION

We REVERSE the Examiner's decision to reject claims 1 and 8-9 under 35 U.S.C. § 102(b) as being anticipated by Bradshaw "in reference to Baughman US 5,971,189."

We REVERSE the Examiner's decision to reject claims 2-5 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Bradshaw.

We AFFIRM the Examiner's decision to reject claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Baughman '953.

We REVERSE the Examiner's decision to reject claims 13-17 under 35 U.S.C. § 103(a) as being unpatentable over Ziegler in view of Bradshaw.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

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